

In the Claims:

Please cancel claims 1-31, and please add claims 32-62, as shown below.

1. – 31. (Canceled)

32. (New) A computer-implemented method, comprising:

storing an access control specification identifying a target entity to which access is to be controlled at a directory server, wherein the access control specification includes an acceptability criterion for operations on the target entity, wherein the acceptability criterion specifies a set of one or more acceptable values for an attribute of the target entity;

in response to a request for an operation on the target entity from a requester, determining whether the operation violates the acceptability criterion, wherein said determining comprises determining whether the operation modifies the attribute value to a value outside the set;

in response to determining that the operation does not violate the acceptability criteria, performing the operation; and

in response to determining that the operation violates the acceptability criteria, indicating that the request is denied.

33. (New) The method as recited in claim 32, wherein the acceptability criterion includes a respective acceptable set for each attribute of a plurality of attributes, and an indication of whether it is necessary to determine the acceptability of each attribute in order to determine that the operation does not violate the acceptability criteria, or whether the acceptability of any one of the attributes is sufficient to determine that the operation does not violate the acceptability criterion.

34. (New) The method as recited in claim 32, wherein said determining whether the operation violates the acceptability criterion comprises:

determining whether a value of the attribute prior to the request is within the acceptable set; and

determining that the operation violates the acceptability criterion if a value of the attribute prior to the request is outside the acceptable set.

35. (New) The method as recited in claim 32, wherein the attribute is a multi-valued attribute, and wherein, prior to the request, the attribute has a plurality of values, wherein said determining whether the operation violates the acceptability criterion further comprises:

determining whether each of the plurality of values of the attribute prior to the request is within the acceptable set; and

determining that the operation violates the acceptability criterion if at least one of the plurality of values prior to the request is outside the acceptable set.

36. (New) The method as recited in claim 32, wherein the access control specification specifies a category of directory server operations to which the acceptability criterion is to be applied.

37. (New) The method as recited in claim 36, wherein the category of directory server operations comprises at least one of: operations that create attribute values, operations that delete attribute values, operations that modify existing attribute values, and operations that search for attribute values.

38. (New) The method as recited in claim 36, wherein the access control specification specifies a plurality of categories of directory server operations and a respective acceptability criterion for each category of the plurality of categories.

39. (New) The method as recited in claim 32, wherein the acceptability criterion is comprised within an access control instruction stored at the directory server.

40. (New) The method as recited in claim 39, wherein the location of the acceptability criterion within the access control instruction is indicated by a keyword.

41. (New) The method as recited in claim 32, further comprising:

receiving input from an operator indicating the acceptability criterion; and

validating the acceptability criterion, wherein said validating comprises:

checking syntax of the input in accordance with a predefined syntax for specifying acceptability criteria; and

validating the set of acceptable values specified in the input.

42. (New) A system, comprising:

a processor; and

memory coupled to the processor, wherein the memory stores program instructions executable by the processor to:

store an access control specification identifying a target entity to which access is to be controlled at a directory server, wherein the access control specification includes an acceptability criterion for

operations on the target entity, wherein the acceptability criterion specifies a set of one or more acceptable values for an attribute of the target entity;

in response to a request for an operation on the target entity from a requester, determine whether the operation violates the acceptability criterion, wherein said determining comprises determining whether the operation modifies the attribute value to a value outside the set;

in response to determining that the operation does not violate the acceptability criteria, perform the operation; and

in response to determining that the operation violates the acceptability criteria, indicate that the request is denied.

43. (New) The system as recited in claim 42, wherein the acceptability criterion includes a respective acceptable set for each attribute of a plurality of attributes, and an indication of whether it is necessary to determine the acceptability of each attribute in order to determine that the operation does not violate the acceptability criteria, or whether the acceptability of any one of the attributes is sufficient to determine that the operation does not violate the acceptability criterion.

44. (New) The system as recited in claim 42, wherein said determining whether the operation violates the acceptability criterion comprises:

determining whether a value of the attribute prior to the request is within the acceptable set; and

determining that the operation violates the acceptability criterion if a value of the attribute prior to the request is outside the acceptable set.

45. (New) The system as recited in claim 42, wherein the attribute is a multi-valued attribute, and wherein, prior to the request, the attribute has a plurality of values, wherein said determining whether the operation violates the acceptability criterion further comprises:

determining whether each of the plurality of values of the attribute prior to the request is within the acceptable set; and

determining that the operation violates the acceptability criterion if at least one of the plurality of values prior to the request is outside the acceptable set.

46. (New) The system as recited in claim 42, wherein the access control specification specifies a category of directory server operations to which the acceptability criterion is to be applied.

47. (New) The method as recited in claim 46, wherein the category of directory server operations comprises at least one of: operations that create attribute values, operations that delete attribute values, operations that modify existing attribute values, and operations that search for attribute values.

48. (New) The system as recited in claim 46, wherein the access control specification specifies a plurality of categories of directory server operations and a respective acceptability criterion for each category of the plurality of categories.

49. (New) The system as recited in claim 42, wherein the acceptability criterion is comprised within an access control instruction stored at the directory server.

50. (New) The system as recited in claim 49, wherein the location of the acceptability criterion within the access control instruction is indicated by a keyword.

51. (New) The system as recited in claim 42, wherein the instructions are further executable to:

receive input from an operator indicating the acceptability criterion; and

validate the acceptability criterion specified in the input, wherein said validating comprises:

checking syntax of the input in accordance with a predefined syntax for specifying acceptability criteria; and

validating the set of acceptable values specified in the input.

52. (New) A tangible, computer-readable medium, comprising program instructions, wherein the instructions are computer-executable to:

store an access control specification identifying a target entity to which access is to be controlled at a directory server, wherein the access control specification includes an acceptability criterion for operations on the target entity, wherein the acceptability criterion specifies a set of one or more acceptable values for an attribute of the target entity;

in response to a request for an operation on the target entity from a requester, determine whether the operation violates the acceptability criterion, wherein said determining comprises determining whether the operation modifies the attribute value to a value outside the set;

in response to determining that the operation does not violate the acceptability criteria, perform the operation; and

in response to determining that the operation violates the acceptability criteria, indicate that the request is denied.

53. (New) The computer-readable medium as recited in claim 52, wherein the acceptability criterion includes a respective acceptable set for each attribute of a plurality of attributes, and an indication of whether it is necessary to determine the acceptability of each attribute in order to determine that the operation does not violate the acceptability criteria, or whether the acceptability of any one of the attributes is sufficient to determine that the operation does not violate the acceptability criterion.

54. (New) The computer readable medium as recited in claim 52, wherein said determining whether the operation violates the acceptability criterion comprises:

determining whether a value of the attribute prior to the request is within the acceptable set; and

determining that the operation violates the acceptability criterion if a value of the attribute prior to the request is outside the acceptable set.

55. (New) The computer readable medium as recited in claim 52, wherein the attribute is a multi-valued attribute, and wherein, prior to the request, the attribute has a plurality of values, wherein said determining whether the operation violates the acceptability criterion further comprises:

determining whether each of the plurality of values of the attribute prior to the request is within the acceptable set; and

determining that the operation violates the acceptability criterion if at least one of the plurality of values prior to the request is outside the acceptable set.

56. (New) The computer readable medium as recited in claim 52, wherein the access control specification specifies a category of directory server operations to which the acceptability criterion is to be applied.

57. (New) The computer-readable medium as recited in claim 56, wherein the category of directory server operations comprises at least one of: operations that create attribute values, operations that delete attribute values, operations that modify existing attribute values, and operations that search for attribute values.

58. (New) The computer-readable medium as recited in claim 56, wherein the access control specification specifies a plurality of categories of directory server operations and a respective acceptability criterion for each category of the plurality of categories.

59. (New) The computer-readable medium as recited in claim 52, wherein the acceptability criterion is comprised within an access control instruction stored at the directory server.

60. (New) The computer-readable medium as recited in claim 59, wherein the location of the acceptability criterion within the access control instruction is indicated by a keyword.

61. (New) The computer-readable medium as recited in claim 52, wherein the instructions are further executable to:

receive input from an operator indicating the acceptability criterion; and

validate the acceptability criterion specified in the input, wherein said validating comprises:

checking syntax of the input in accordance with a predefined syntax for specifying acceptability criteria; and

validating the set of acceptable values specified in the input.

62. (New) A directory server, comprising:

a database storing directory entries representing a plurality of entities managed using the directory server;

an access control instruction builder configured to receive as input from an operator an acceptability criterion for an access control instruction indicating, based on specified acceptable values of an attribute of a particular entity of the plurality of entities, whether a directory server operation is permissible on the particular entity;

an access control processor configured to:

in response to a request for the operation on the particular entity from a requester, determine whether the operation violates the acceptability criterion by setting the attribute to an unacceptable value;

in response to determining that the operation does not violate the acceptability criteria, permit the operation to be performed; and

in response to determining that the operation violates the acceptability criteria, disallow the operation.